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Serial No. : 10/644,629  
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Attorney's Docket No.: 15786-016001

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Canceled)
2. (Previously Presented) The method of claim 34, wherein the method further comprises assigning one or more tracking attributes to the one or more selected edges within the computing environment, where the tracking attributes specify that at least one or more of the tracking attributes are to be propagated during each of a split, copy or merge operation performed within the computing environment on the selected edge.
3. (Original) The method of claim 2, wherein the one or more tracking attributes include a unique index, *i*, incremented for each edge.
4. (Previously Presented) The method of claim 34, wherein the method further comprises replicating one or more of the data representations of a wire body for one or more of the selected one or more edges.
5. (Previously Presented) The method of claim 34, wherein generating a data representation of a wire body for each of the one or more selected edges comprises calling a shape manager of the computing environment to synthesize a wire body for one of the one or more edges.

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6. (Canceled)

7. (Canceled)

8. (Previously Presented) The method of claim 34, wherein the method further comprises creating within the computing environment, welding parameters of the weld bead.

9. (Previously Presented) The method of claim 34, wherein the method further comprises facilitating persistent attribute assignment within the computing environment, including persistent attribute assignment of a name for each of the one or more selected edges.

10. (Previously Presented) The method of claim 9, wherein the persistent attribute assignment comprises retrieving from a source within the computing environment, one or more identifications identifying an edge of the one or more edges of the components of an article of manufacture to be welded.

11. (Currently Amended) In a computing environment, a method of operation comprising:

selecting within the computing environment, an edge of a weld bead whose data representation is formed based on one or more data representations of one or more edges ~~or of~~ one or more components of an article of manufacture to be welded together using the weld bead at the one or more edges when manufacturing the article;

retrieving from a source within the computing environment, one or more identifications identifying both the one or more edges of the one or more components and the one or more components;

forming within the computing environment, a name attribute based at least in part on the retrieved one or more identifications; and

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assigning within the computing environment, the name attribute to the selected edge of the weld bead.

12. (Original) The method of claim 11, wherein the retrieving is repeated for each edge of each component associated with the edge of the weld bead; and

the forming is based at least in part on all the retrieved identifications.

13. (Original) The method of claim 11, wherein the selecting, retrieving, forming and assigning are repeated for each edge of the weld bead.

14. (Canceled)

15. (Previously Presented) The machine readable article of claim 36, wherein the instructions are further designed to assign one or more tracking attributes to the one or more selected edges within the apparatus, where the tracking attributes specify that at least one or more of the tracking attributes are to be propagated during each of a split, copy or merge operation performed within the apparatus on the selected edge.

16. (Previously Presented) The machine readable article of claim 36, wherein the instructions are further designed to generate a data representation of a wire body for each of the one more selected edges by calling a shape manager of the apparatus to synthesize a wire body for one of the one or more edges.

17. (Canceled)

18. (Canceled)

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19. (Previously Presented) The machine readable article of claim 36, wherein the instructions are further designed to create within the apparatus, welding parameters of the weld bead.

20. (Previously Presented) The machine readable article of claim 36, wherein the instructions are further designed to facilitate persistent attribute assignment within the apparatus, including persistent attribute assignment of a name for each of the one or more selected edges.

21. (Canceled)

22. (Previously Presented) The apparatus of claim 38, wherein the instructions are further designed to enable the apparatus to assign one or more tracking attributes to the one or more selected edges within the apparatus, where the tracking attributes specify that at least the one or more of the tracking attributes are to be propagated during each of a split, copy or merge operation performed within the apparatus on the selected edge.

23. (Original) The apparatus of claim 22, wherein the one or more tracking attributes include a unique index, *i*, incremented for each edge.

24. (Previously Presented) The apparatus of claim 22, wherein the instructions are further designed to enable the apparatus to replicate one or more of the selected one or more edges.

25. (Previously Presented) The apparatus of claim 38, wherein the apparatus further comprises a shape manager, and the instructions are further designed to generate a data

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representation of a wire body for each of the one or more selected edges by calling the shape manager to synthesize a wire body for one of the one or more edges.

26. (Canceled)

27. (Canceled)

28. (Previously Presented) The apparatus of claim 38, wherein the instructions are further designed to create within the apparatus, welding parameters of the weld bead.

29. (Previously Presented) The apparatus of claim 38, wherein the instructions are further designed to facilitate persistent attribute assignment within the apparatus, including persistent attribute assignment of a name for each of the one or more selected edges.

30. (Previously Presented) The apparatus of claim 29, wherein the instructions are further designed to perform the persistent attribute assignment by retrieving one or more identifications identifying an edge of the one or more edges of the components of an article of manufacture to be welded.

31. (Previously Presented) An apparatus comprising:  
a storage medium having stored therein a plurality of instructions designed to enable the apparatus to

select within the apparatus an edge of a weld bead which data representation is  
formed based on one or more data representations of one or more edges of one or  
more components of an article of manufacture to be welded using the weld bead  
at the one or more edges when manufacturing the article,

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retrieve from a source within the apparatus, one or more identifications identifying both the one or more edges of the one or more components and the one or more components,  
form a name attribute within the apparatus, based at least in part on the retrieved one or more identifications, and  
assign within the apparatus, the name attribute to the selected edge of the weld bead;  
and  
one or more processors coupled to the storage medium to execute the instructions.

32. (Original) The apparatus of claim 31, wherein the instructions are further designed to  
repeat the retrieving for each edge of each component associated with the edge of the weld bead; and  
perform the forming based at least in part on all the retrieved identifications.

33. (Original) The apparatus of claim 32, wherein the instructions are further designed to repeat the selecting, retrieving, forming and assigning for each edge of the weld bead.

34. (Currently Amended) In a computing environment, a method to represent a weld bead to be used to weld one or more components of an article of manufacture at one or more edges of the one or more components in the manufacturing of the article outside the computing environment, the method comprising:

selecting one or more edges of the one or more components of the article of manufacture to be welded;  
generating a data representation of a wire body for each of the one or more selected edges; and

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generating a data representation of a final wire body based on the data representations of a wire body for each of the one or more selected edges, where the final wire body represents the weld bead.

35. (Previously Presented) The method of claim 34, where generating a data representation of a final wire body comprises:

if in the generating a data representation of a wire body for each of the one or more selected edges step only one data representation of a wire body is generated, then using said data representation of a wire body as the data representation of the final wire body, else, uniting the more than one data representations to form the data representation of the final wire body.

36. (Previously Presented) A machine readable article comprising  
a machine readable storage medium; and  
a plurality of machine executable instructions stored in the machine readable storage medium, with the instructions designed to enable an apparatus to  
select one or more edges of one or more components of an article of manufacture to be  
welded;  
generate a data representation of a wire body for each of the one or more selected edges;  
and  
generate a data representation of a final wire body based on the data representations of a wire body for each of the one or more selected edges.

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37. (Previously Presented) The machine readable article of claim 36, wherein the instructions are further designed to generate within the apparatus, a final data representation of a final wire body by

if in the generating a data representation of a wire body for each of the one or more selected edges step only one data representation of a wire body is generated, then using said data representation of a wire body as the data representation of the final wire body, else, uniting the more than one data representations to form the data representation of the final wire body.

38. (Previously Presented) An apparatus comprising:  
a storage medium having stored therein a plurality of instructions designed to enable the apparatus to

select one or more edges of one or more components of an article of manufacture to be welded;

generate a data representation of a wire body for each of the one or more selected edges;  
and

generate a data representation of a final wire body based on the data representations of a wire body for each of the one or more selected edges; and

a processor coupled to the storage medium to execute the instructions.

39. (Previously Presented) The apparatus of claim 38, wherein the instructions are further designed to perform the generating within apparatus, a final data representation of a final wire body by



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if in the generating a data representation of a wire body for each of the one or more selected edges step only one data representation of a wire body is generated, then using said data representation of a wire body as the data representation of the final wire body, else, uniting the more than one data representations to form the data representation of the final wire body.